

**THAT WHICH IS CLAIMED IS:**

1. A system for providing a record of the performance of an aircraft engine comprising:  
an engine monitoring module mounted on the aircraft engine for collecting engine data relating to operation of the aircraft engine, said engine monitoring module further comprising a transmitter for transmitting the engine data over a wireless communications signal; and  
a receiver for receiving the transmitted engine data.
2. A system according to claim 1, wherein said transmitter comprises a spread spectrum transmitter for transmitting the engine data over a wideband spread spectrum communications signal.
3. A system according to claim 1, and further comprising a conformal antenna mounted on the engine monitoring module through which the wireless communications signal is transmitted.
4. A system according to claim 1, and further comprising a processor operative for receiving the engine data from said receiver for further processing of the engine data.
5. A system according to claim 4, and further comprising an internet for transferring the engine data from the receiver to said processor.

6. A system according to claim 4, and further comprising a public switched telephone network for transferring the engine data from the receiver to said processor.

7. A system according to claim 4, and further comprising a cellular network for transferring the engine data from the receiver to said processor.

8. A system according to claim 4, and further comprising a transmitter operative with said receiver for transmitting said engine data from said receiver to said processor using a wireless communications signal.

9. A system according to claim 1, and further comprising a FADEC/ECU operative with said aircraft engine for collecting engine data, wherein said engine monitoring module is electrically connected to said FADEC/ECU for collecting engine data.

10. A system according to claim 1, and further comprising a data address assigned to the engine monitoring module and linking the data address to an engine serial number for tracking the aircraft engine.

11. A system according to claim 10, wherein said data address comprises an internet address.

12. A system for providing a record of the performance of an aircraft engine comprising:

an engine monitoring module mounted on the aircraft engine for collecting aircraft engine data relating to

operation of the aircraft engine, said engine monitoring module further comprising a transceiver for transmitting the engine data and receiving data for onboard processing over a wireless communications signal; and

a receiver for receiving the transmitted engine data.

13. A system according to claim 12, wherein said transceiver comprises a spread spectrum transceiver for transmitting the engine data or receiving data for onboard processing over a wideband spread spectrum communications signal.

14. A system according to claim 12, and further comprising a conformal antenna mounted on the engine monitoring module through which the wireless communications signal is transmitted and received.

15. A system according to claim 12, and further comprising a processor operative for receiving the engine data from said receiver for further processing of the engine data.

16. A system according to claim 15, and further comprising an internet for transferring the engine data from the receiver to said processor.

17. A system according to claim 15, and further comprising a public switched telephone network for transferring the engine data from the receiver to said processor.

18. A system according to claim 15, and further comprising a cellular network for transferring the engine data from the receiver to said processor.

19. A system according to claim 15, and further comprising a transmitter operative with said receiver for transmitting said engine data from said receiver to said processor using a wireless communications signal.

20. A system according to claim 12, and further comprising a FADEC/ECU operative with said aircraft engine for collecting engine data, wherein said engine monitoring module is electrically connected to said FADEC/ECU for collecting engine data therefrom.

21. A system according to claim 12, and further comprising a data address assigned to the engine monitoring module and linking the data address to an engine serial number for tracking the aircraft engine.

22. A system according to claim 21, wherein said data address comprises an internet address.

23. A wireless engine monitoring system comprising:  
an aircraft engine; and  
an engine monitoring module mounted on the aircraft engine and operative for collecting engine data relating to the performance of the aircraft engine, said engine monitoring module further comprising a transmitter for transmitting the engine data over a wireless communications signal.

24. A wireless engine monitoring system according to claim 23, and further comprising a FADEC/ECU operative with the aircraft engine for collecting engine data from the aircraft engine, wherein said engine monitoring module is operative with said FADEC/ECU for collecting engine data therefrom.

25. A wireless engine monitoring system according to claim 23, and further comprising a conformal antenna mounted on the engine monitoring module through which the wireless communications signal is transmitted.

26. A wireless engine monitoring system according to claim 23, wherein said engine monitoring module has an assigned data address that is linked to a serial number of the aircraft engine for tracking the engine.

27. A wireless engine monitoring system according to claim 26, wherein said data address comprises an internet address.

28. A wireless engine monitoring system comprising:  
 an aircraft engine; and  
 an engine monitoring module mounted on the aircraft engine and operative for collecting engine data relating to the performance of the aircraft engine, said engine monitoring module further comprising a transceiver for transmitting the engine data and receiving data for onboard processing over a wireless communications signal.

29. A wireless engine monitoring system according to claim 28, and further comprising a FADEC/ECU operative

with the aircraft engine for collecting engine data from the aircraft engine, wherein said engine monitoring module is operative with said FADEC/ECU for collecting engine data therefrom.

30. A wireless engine monitoring system according to claim 28, and further comprising a conformal antenna mounted on the engine monitoring module through which the wireless communications signal is transmitted and received.

31. A wireless engine monitoring system according to claim 28, wherein said engine monitoring module has an assigned data address that is linked to a serial number of the aircraft engine for tracking the engine.

32. A wireless engine monitoring system according to claim 31, wherein said data address comprises an internet address.

33. A method of providing a record of the performance of an aircraft engine comprising the steps of:

collecting aircraft engine data within an engine monitoring module mounted on the aircraft engine; and

downloading the engine data that has been collected in the engine monitoring module over a wireless communications signal to a receiver.

34. A method according to claim 33, and further comprising the step of downloading the engine data over a wideband spread spectrum communications signal.

35. A method according to claim 33, and further comprising the step of transmitting the wireless communications signal via a conformal antenna mounted on the engine monitoring module.

36. A method according to claim 33, and further comprising the step of transferring the engine data from the receiver to a processor for further processing.

37. A method according to claim 36, and further comprising the step of transferring the engine data using the internet.

38. A method according to claim 36, and further comprising the step of transferring the engine data using a public switched telephone network.

39. A method according to claim 36, and further comprising the step of transferring the engine data using a cellular network.

40. A method according to claim 36, and further comprising the step of transferring the engine data using a wireless signal.

41. A method according to claim 33, and further comprising the step of collecting engine data from a FADEC/ECU operative with the aircraft engine.

42. A method according to claim 33, and further comprising the step of assigning a data address to the

engine monitoring module and linking the data address to an engine serial number for tracking the engine.

43. A method according to claim 42, wherein the data address comprises an internet address.

44. A method of providing a record of the performance of an aircraft engine comprising the steps of:

collecting aircraft engine data within an engine monitoring module mounted on the aircraft engine; and  
downloading the engine data that has been collected in the engine monitoring module over a wireless communications signal to a receiver and/or uploading data for onboard processing.

45. A method according to claim 44, and further comprising the step of downloading the engine data and/or uploading data for onboard processing over a wideband spread spectrum communications signal.

46. A method according to claim 44, and further comprising the step of transmitting and/or receiving the wireless communications signal via a conformal antenna mounted on the engine monitoring module.

47. A method according to claim 44, and further comprising the step of transferring the engine data from the receiver to a processor for further processing.



48. A method according to claim 47, and further comprising the step of transferring the engine data using the internet.

49. A method according to claim 47, and further comprising the step of transferring the engine data using a public switched telephone network.

50. A method according to claim 47, and further comprising the step of transferring the engine data using a cellular network.

51. A method according to claim 47, and further comprising the step of transferring the engine data using a wireless signal.

52. A method according to claim 44, and further comprising the step of collecting engine data from a FADEC/ECU operative with the aircraft engine.

53. A method according to claim 44, and further comprising the step of assigning a data address to the engine monitoring module and linking the data address to an engine serial number for tracking the engine.

54. A method according to claim 53, wherein the data address comprises an internet address.